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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,088	07/22/2004	Gang Hoon Lee	HI-207	5506

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EXAMINER

VOGELBACKER, MARK T

ART UNIT PAPER NUMBER

3677

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/502,088	<b>Applicant(s)</b> LEE ET AL.	
	<b>Examiner</b> Mark T. Vogelbacker	<b>Art Unit</b> 3677	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,4,7-9 and 12-32 is/are pending in the application.
- 4a) Of the above claim(s) 12,13 and 27-32 is/are withdrawn from consideration.
- 5) ☒ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,4,7,9,14-23,25 and 26 is/are rejected.
- 7) ☐ Claim(s) 8 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Newly submitted claims 12, 13 and 27-32 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: this application contains claims directed to the following patentably distinct species of the claimed invention:

- I. Figures 1-7
- II. Figures 8 and 9

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 12, 13 and 27-32 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 14-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14, lines 2-3, "the outer circumference" of the "braking member" is structurally unclear since the "braking member" is not properly defined. Regarding line 3, is there just one "fixed" plate or are there multiple "fixed. . . plates"? The phrase "fixed...plates" conveys that there are multiple "fixed" plates.

Claim 17, line 5, the phrase “horizontally extended” is not understood. Does “horizontally extended” mean “parallel to”?

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 4, 9, 14, 18-19 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho, US-2001/0052167A1 in view of Rude et al., US-5,406,678.

Cho discloses the invention as claimed, including a fixed plate (1) with first and second arms, pivotal plates (2) a non-circular rotation shaft (3) inserted into the fixed (1) and pivotal (2) plates for allowing relative rotational movement, elastic members and an anti-release member (7). Cho does not show a braking member or a rotation shaft that passes through the first and second arms of the fixed plate. Rude teaches a braking member (25), with a frictional face, and a rotation shaft (17) that passes through the first and second arms of the fixed plate (19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the shaft of Cho to include the braking member, as taught by Rude, to prevent idling of a rotational shaft from occurring when starting the turning motion of the pivotal plates. As to the phrase “engineering plastic”, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the braking member of engineering plastic, since it has been held to be within the general skill of a worker in the art to select a known material on the

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basis of its suitability for the intended use as a matter of obvious design choice (*In re Leshin*, 125 USPQ 416).

Regarding claim 23, Cho discloses protrusions included on the first and second arms of the fixed plate (1) and a stopper guide (5), with a guide groove, mounted on the rotation shaft. However, the guide groove of the Cho device receives protrusions from the pivotal plates (2), not the fixed plate as claimed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Cho device to have the guide groove receive the protrusions of the fixed plate, instead of the pivotal plates, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art (*In re Einstein*, 8 USPQ 167).

6. Claims 7, 15-17, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho, US-2001/0052167A1 in view of Rude et al., US-5,406,678 and further in view of Watabe et al., US-5,682,645.

Cho and Rude teach the invention as claimed, but do not mention braking-tightening planes, a braking housing or a leaf spring. Watabe teaches a hinge structure comprised of braking-tightening planes (9, 10), a braking housing (5) surrounding a braking member (13), and a leaf spring (14, 15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Cho and Rude device to include a braking-tightening planes, a braking housing or a leaf spring, as taught by Watabe, to enhance the friction applied to the rotation shaft.

*Allowable Subject Matter*

7. Claims 8 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Response To Arguments*

8. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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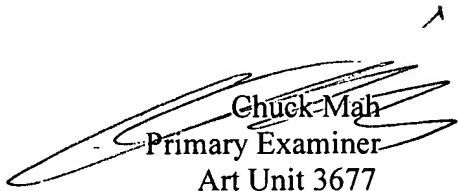
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Vogelbacker whose telephone number is (571) 272-1648. The examiner can normally be reached on 8:00 am-5:30 pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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